

Application no. 09/550,867
Amdt. dated June 8, 2004
Reply to Office Action of April 19, 2004

Claim 1 (currently amended): A method for conserving addresses in a finite address domain, comprising:

reserving an address in the domain for intra-switch only applications;
assigning the address to a switch, said switch comprising a plurality of interfaces coupled to a backplane;
interconnecting the switch in a network; and
using the address solely within the switch ~~to distribute data, whereby data are distributed to at least one of the plurality of interfaces via the backplane without transmitting the address to the network from any of the plurality of interfaces.~~

Claim 2 (currently amended): The method according to claim 1, further comprising repeating the assigning, interconnecting and using ~~applying~~ steps for a second switch in a second network.

Claim 3 (original): The method according to claim 1, wherein the address is a media access control (MAC) address.

Claim 4 (currently amended): A method for conserving addresses in a finite address domain, comprising:

reserving a first address in the domain for a particular manufacturer;
reserving a second address in the domain for intra-switch only applications;
assigning the first address and the second address to a switch, said switch comprising a plurality of interfaces coupled to a backplane;
interconnecting the switch to a transmission medium;
transmitting ~~applying~~ the first address on the transmission medium; and
using the second address solely within the switch to distribute data to at least one of the plurality of interfaces via the backplane without transmitting the second address on the transmission medium.

Claim 5 (original): The method according to claim 4, further comprising:
requesting allocation of a reserved address from the domain; and

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allocating the first address in response to the request if the requester is the particular manufacturer.

Claim 6 (currently amended): The method according to claim 4, wherein the first and second addresses are MAC addresses.

Claim 7 (currently amended): A method for conserving addresses in a finite address domain, comprising:

reserving a first address in the domain for a first manufacturer;
reserving second address in the domain for a second manufacturer;
assigning the first addresses and a third address to a switch manufactured by the first manufacturer comprising a first plurality of interfaces coupled to a first backplane;
assigning the second address and the third address to a switch manufactured by the second manufacturer comprising a second plurality of interfaces coupled to a second backplane;
interconnecting the switches to respective transmission media;
applying the first address and the second address on the respective transmission media; and
applying the third address solely within the respective switches, whereby data are distributed to at least one of the plurality of interfaces of the respective switches via the respective backplane without transmitting the third address to the respective transmission media.

Claim 8 (original): The method according to claim 7, further comprising:

allocating the first address to the first manufacturer in response to a request by the first manufacturer; and
allocating the second address to the second manufacturer in response to a request by the second manufacturer.

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Claim 9 (currently amended): A switch operative in a network and having a plurality of addresses assigned thereto including at least one organizationally unique address and at least one organizationally redundant address, wherein the organizationally redundant address is used solely within the switch to distribute data, whereby data are distributed via a switch backplane without transmitting the at least one organizationally redundant address on the network.

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Claim 10 (currently amended): The switch according to claim 9, wherein the organizationally unique address is applied transmitted outside the switch.

Claim 11 (original): The switch according to claim 9 wherein the addresses are MAC addresses.

Claim 12 (currently amended): A network, comprising:
a first switch having a first address and a second address assigned thereto;
a second switch having the first address and a third address assigned thereto; and
a transmission medium interconnecting the first switch and the second switch;
wherein the first address is transmitted solely within the first switch and the second switch, whereby data are distributed between a plurality of interfaces coupled to a backplane, and
wherein the second address and the third address are transmitted between the first switch and the second switch on the transmission medium.

Claim 13 (original): The network according to claim 12, wherein the first, second and third addresses are MAC addresses.

Claim 14 (currently amended): A method for conserving MAC addresses, comprising:
reserving a MAC address for intra-device only applications;
assigning the MAC address to a device, said device comprising a plurality of interfaces coupled to a backplane;
interconnecting the device in a network; and

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using the MAC address solely within the device ~~to distribute data, whereby data~~
are distributed to at least one of the plurality of interfaces via the backplane without
transmitting the MAC address on the network.

Claim 15 (currently amended): The method according to claim 14, further comprising
repeating the assigning, interconnecting and using ~~applying~~ steps for a second device in a
second network.

Claim 16 (original): The method according to claim 14, wherein the device is a switch.

Claim 17 (currently amended): A device operative in a network and having a plurality of
MAC addresses assigned thereto including at least one organizationally unique MAC
address and at least one organizationally redundant MAC address, wherein the
organizationally redundant MAC address is applied solely within the device, whereby
data are distributed via a switch backplane without transmitting the organizationally
redundant MAC address on the network.

Claim 18 (original): The device according to claim 17, wherein the organizationally
unique MAC address is applied outside the device.

Claim 19 (original): A network, comprising:

a first device having a first MAC address and a second MAC address assigned
thereto;

a second device having the first MAC address and a third MAC address assigned
thereto; and

a transmission medium interconnecting the first device and the second device;
wherein the first MAC address is transmitted solely within the first device and the
second device, and the second MAC address and the third MAC address are transmitted
between the first device and the second device on the transmission medium.